



# **PEDIATRIC SURGERY Update** ©

## **Vol. 37 No. 02 AUGUST 2011**

### **Neoappendicostomy**

The use of the appendix as a conduit (appendicostomy) for the management of fecal incontinence caused by anorectal malformations, spina bifida and other diagnosis, has markedly improved the quality of life of children. Using this approach the child can regularly irrigate his large bowel and maintain socially continent for long periods of time. It also creates independence care as the child learns how to maintain clean using the prograde enemas regimen. When the appendix is not available due to previous surgical removal, a neoappendicostomy using a flap of cecum or ascending colon can be constructed. Other alternatives are using the sigmoid, transverse or descending colon. The flap must feed from the mesenteric side of the bowel to avoid ischemia. The neoappendicostomy created is wrap by a segment of colon creating a valve mechanism to reduce the leakage rate. Other workers have found the wrap and fixation unnecessary. The two main complications of the procedure are stricture formation and leakage. The button cecostomy is another common alternative for the child with no appendix available. These buttons can be placed open, laparoscopically, percutaneously or endoscopically. Complications of the buttons include dislodgement, granulation tissue, leakage, pain and ulcer formation. Incidental appendectomy should be discouraged in children with the potential to develop fecal incontinence in the future.

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### **Vascular Malformations Male Genitalia**

Vascular malformations involving the male genitalia can cause considerable stress, adversely impact a child self-image, cause pain and alter urinary, reproductive and sexual function. Vascular malformations of male genitalia are more common than

vascular tumors. They are divided in slow and fast flow lesions. The most common slow-flow vascular malformations affecting this anatomic area are lymphatics, venous or a combination of both. Fast-flow lesions are more commonly arteriovenous defects. These malformations clinically present with swelling, pain, fluid leakage, and infection. Other specific symptoms include hematuria, chylous reflux, dysuria, bladder outlet obstruction, erectile dysfunction and ambiguous genitalia. Diagnosis is made with a combination of physical exam and imaging. Indications for management of vascular malformations include bleeding, infection, fluid leakage, dysfunction and cosmetic concern. Management of vascular malformation includes surgical excision, pharmacotherapy, sclerotherapy, embolization, or a combination. The most common specific malformation is the infantile hemangioma. Though treatment is usually expectant there is place for use of steroid, propranolol and surgical excision. Lymphatic malformations in the groin and cord can be confused with an inguinal hernia. Combined slow-flow malformations are usually associated with soft tissue and skeletal hypertrophy.

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## **Appendix Diverticulum**

Diverticulum of the appendix is a very rare disorder. Two types have been described. The true or congenital type in which all layers of the wall of the appendix are found in the wall of the diverticulum. The lesion is in the antimesenteric border and may be single or multiple. The other type most commonly found is the false or acquired diverticulum in which the muscular layer is absent from the wall. Acquired diverticulum are found on the mesenteric border and most commonly multiple. Appendix diverticulum can develop inflammation and perforation. Clinical symptoms range from chronic right lower quadrant abdominal pain to acute appendicitis. With inflammation of the diverticulum the most common diagnosis entertained is acute appendicitis. Even at operation the diagnosis of a diverticulum causing the inflammation can be missed. The congenital variety brings problems in the pediatric age, while the acquired form is more proper of the adult population. The management in all cases is appendectomy. Asymptomatic diverticulosis of the appendix found incidentally warrants appendectomy. Children with cystic fibrosis have a high incidence of appendix diverticulosis.

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\* Edited by: **Humberto Lugo-Vicente, MD, FACS, FAAP**

Professor of Pediatric Surgery, University of Puerto Rico - School of Medicine,  
Rio Piedras, Puerto Rico. Director - Pediatric Surgery, San Jorge Childrens Hospital.  
Address: P.O. Box 10426, Caparra Heights Station, San Juan, Puerto Rico USA 00922-0426.  
Tel (787)-786-3495 Fax (787)-720-6103 E-mail: *titolugo@coqui.net*  
Internet: <http://home.coqui.net/titolugo>

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ISSN 1089-7739